Chapter 1 PROPOSED PROJECT

1.1 INTRODUCTION

The California Department of Transportation (Caltrans) and its federal partner, the Federal Highway Administration (FHWA), propose to improve State Route (SR) 116 in Sonoma County from west of Alder Avenue to east of intersection with Cooper Road nearest the Sebastopol city limit. The total length of the project is 10.8 kilometers (6.7 miles). This is a roadway rehabilitation project that includes pavement restoration and operational improvements. The proposed project also addresses the mobility needs of mass-transit users. Figure 1-1 shows project location and vicinity maps.

SR-116 in Sonoma County is a rural highway that provides an east-west connection between the Pacific Coast and the Sonoma Valley, in Sonoma County, California. The proposed project is located along a portion of SR-116 between the City of Sebastopol and US Highway 101 in the City of Cotati. Within the project limits, SR-116 exhibits the non-standard intersections, non-standard shoulder and roadway dimensions, and a lack of left-turn lanes typical of older rural roads that have been incorporated into the overall State Highway System.

The projected year 2007 annual average daily traffic (AADT) along SR-116 within the project limits is approximately 22,300 vehicles. The projected year 2030 AADT is anticipated to be approximately 25,600 vehicles. Traffic volumes along SR-116 typically increase on weekends, when the highway is used to access the Pacific coast, or the wineries in western Sonoma County. Weekday use and traffic volumes are primarily generated by commuters destined for Santa Rosa to the north and Marin County to the south.

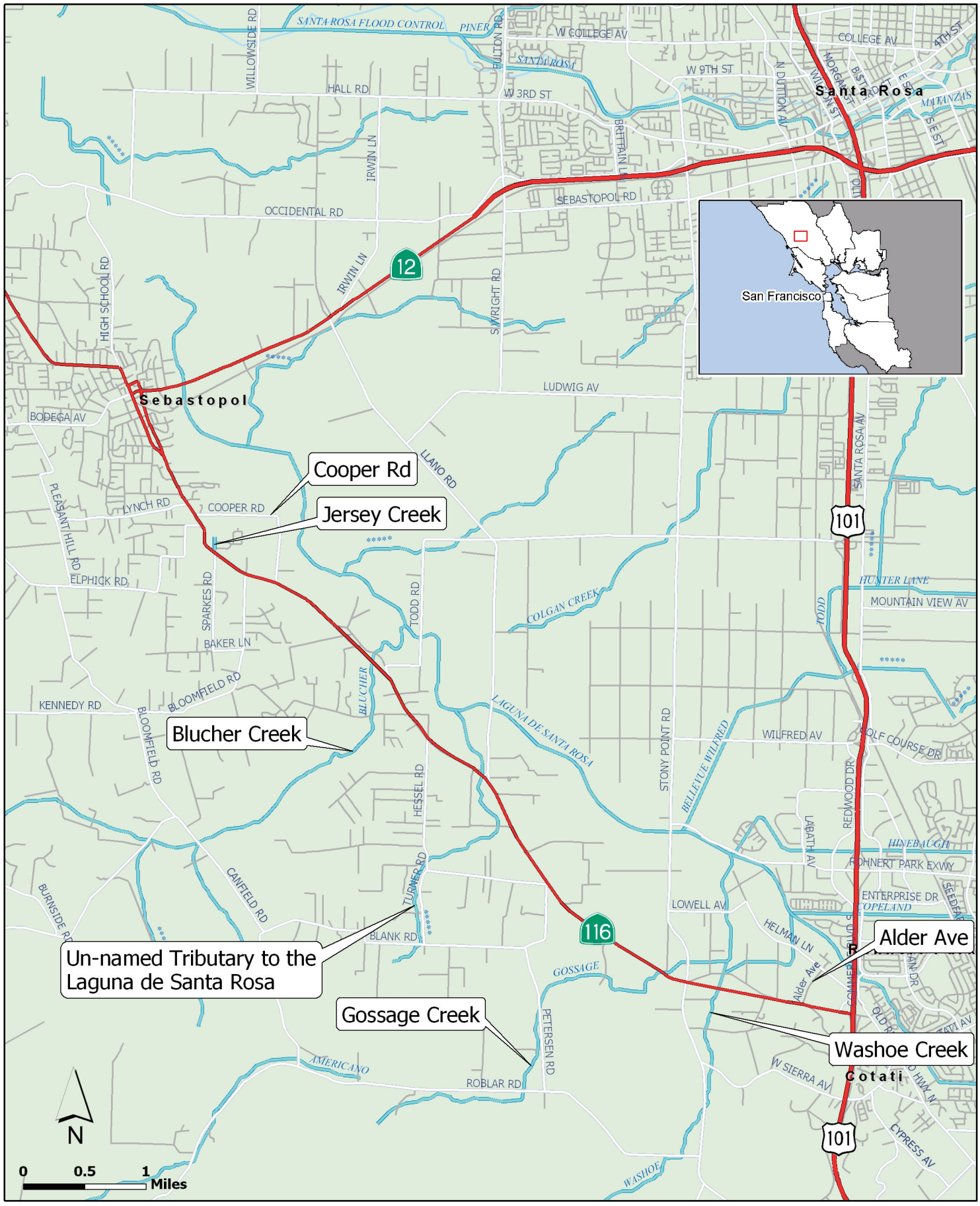
This project would be funded from the State Highway Operation and Protection Program (20.20.201.120) under the Roadway Preservation Category. The total project cost is $83 million to be funded by the State Highway Operation and Protection Program (SHOPP). Additional funds will come from the City of Cotati and Sonoma County through a cooperative agreement.The current estimate of non-escalated construction costs is $47,000,000 and of mitigation costs is $5,000,000. Escalated right-of-way costs would be $31,000,000 in the 2010/11 FY.

1.2 PURPOSE AND NEED

The purpose of the project is to return the roadway to good condition. Roadway needs addressed by this rehabilitation project include the following:

- Pavement on this section of SR-116 is worn, cracked, and heavily patched.
- Sections of the project area lack full-width paved shoulders, which provide for the accommodation of stopped vehicles, for emergency use, and for refuge in case of hazardous

Figure 1-1 Project Vicinity and Area Map



situations. Shoulder widening has been found to significantly reduce run-off-the-road and head-on collisions. The widening and resurfacing of the entire paved shoulder also allows greater space for use by bicyclists and for the installation of bus stops. Buses in the project area have little room on the shoulder to pull off and make stops.

- The project area contains several skew intersections. Right-angle intersections provide the shortest crossing distance for motor vehicles, bicycles, and pedestrians. They also provide sight lines that optimize corner sight distance and the ability of drivers to judge the relative position and speed of approach vehicles.
- Several intersections in the project area lack separate turning lanes. Turning lanes remove turning movements from the intersection area by separating traffic movements into definite paths of travel. Currently, motorists may be using the shoulder to pass other vehicles that are waiting to turn left. This can be hazardous for pedestrians, cyclists, and maintenance personnel.
- The majority of the corrugated metal pipe cross-culverts under the roadway are rusting out and no longer function properly.
- Current reinforced concrete box (RCB) culverts used as bridges over creeks in the project area do not meet current standards for facilitation of fish passage, and in some cases are undersized, contributing to roadway flooding.

The primary purpose of roadway rehabilitation projects is to return roadways that ride rougher than established thresholds, and/or exhibit major structural distress, to good condition. The proposed project includes a set of design standards intended to increase SR-116 highway mobility in a manner that is compatible with, or that enhances, adjacent community values and regional plans.

1.3 PROJECT DESCRIPTION

The proposed project is a roadway rehabilitation project that will include restoration of the pavement by overlaying the existing roadway surface with asphalt concrete. As part of this effort, Caltrans also plans to standardize lane and shoulder widths, restripe the roadway, standardize intersection connections with adjacent roadways where feasible, and establish bus pads for mass transit. As part of the proposed project, some of the existing cross culverts and creek crossing structures will also be modified. Avoidance and minimization of project effects have been included in the project, and are summarized in relevant sections of this document. This project does not increase roadway carrying capacity.

1.4 ALTERNATIVES

1.4.1 No Build – No Action Alternative

Under the No Build alternative, the existing highway configuration would remain as it is. SR-116 is currently a two-lane rural highway with several obsolete features, including shoulders ranging

from 0.0-2.4 meters (0.0-8.0 feet) in width. The No Build alternative would not preclude spot improvements or routine maintenance as necessary.

The No Build Alternative does not meet the purpose and need of this project. However, baseline information was developed for the purposes of analysis and comparison to the build alternative.

1.4.2 Proposed Alternative

The proposed alternative comprises the following components:

1.4.2.1 Roadway Surfacing and Striping

The proposed project will address the existing deteriorated condition of the roadway by repaving. After the surface has been rehabilitated, centerline and roadway edges will be re-striped.

1.4.2.2 Provide Standard Shoulder Widths

Current California State Highway Engineering and Design Standards stipulate a shoulder width of 2.4 meters (8.0 feet), for new construction and for major reconstruction on conventional highways. The standard lanes and shoulders will be provided by adding onto the existing roadway. During design of the proposed project, engineers have allowed for occasional exceptions to this design standard for the purpose of avoiding or reducing environmental effects.

1.4.2.3 Right- and Left-Turn Lanes

Separate turning lanes, which accommodate vehicles during left or right turning , prevent restrictions in traffic movement by separating traffic into definite paths of travel. In order to address the traffic restrictions and turning conditions within the project limits, the proposed project will create left- or right-turn lane channels at several larger intersections in the project area. Specific locations are listed in Table 1-1.

Table 1-1 Right and Left Turn Lanes (Turn Pockets)

Intersection	Proposed New Lanes
New Todd Road	New left-turn lane southbound New right-turn lane westbound
Lone Pine Road/ Mount Vernon Road	New left-turn pocket from westbound SR-116 onto Lone Pine Road New left-turn pocket eastbound onto Mount Vernon Road New right-turn lane on Lone Pine Road onto eastbound SR-116
Mt. Vernon Road/ Hessel Road	New left-turn lane from westbound SR-116 onto Hessel Road New eastbound left turn lane from SR-116 onto Mount Vernon Road New right-turn lane on Hessel Road onto eastbound SR-116
Llano Road	New left-turn pocket from eastbound SR-116 on to Llano Road
Blank Road	New westbound left-turn pocket on SR-116 onto Hessel Road New eastbound right-turn pocket on SR-116 onto Hessel Road
Madrone Avenue	New eastbound left-turn lane from SR-116 onto Derby Lane New westbound left-turn pocket on SR-116 onto Madrone Avenue

1.4.2.4 Standardization of Intersections

The proposed project includes correcting where feasible the existing non-standard alignments of several streets that have skewed intersections with SR-116, which represent hazards to motorists entering the roadway, to pedestrians, and to bicyclists attempting to cross SR-116. These include the following listed intersections:

- At the intersection of Hessel Road and Blank Road with SR-116, the proposed project will realign Hessel Road to be perpendicular with SR-116, and Blank Road will be realigned to intersect with Hessel Road instead of directly to SR-116.
- Todd Road will be extended to create new highway access with a T intersection to replace the existing skewed intersection at the current Old Gravenstein access. The Old Gravenstein connector to SR-116 will be made into a cul-de-sac.
- Minor changes may be made to other intersections in order to bring them into conformity with the dimensions of the rehabilitated roadway within the project limits.

1.4.2.5 Signalization

Traffic signals will be installed at the following intersections:

- Lone Pine Road/Mount Vernon Road
- Hessel Road/Mount Vernon Road

1.4.2.6 Bus Pads

Caltrans, in conjunction with Sonoma County Transit (SCTA), has determined sites for bus pads that are outside of major curves in the roadway and are easy for buses access. The proposed design includes bus pads in several locations, including near the intersections of SR-116 with Industrial, Bloomfield, Fredericks, Hessel/Mount Vernon, Daywalt, Woodworth, and Gilchrist.

1.4.2.7 Box Culvert Improvement

The proposed project will replace existing box culverts with more appropriate structures, and, where necessary, remove existing debris or structures from creek channels within the project limits in order to improve fish passage and further to reduce the risk of flooding.

Existing box culverts will be replaced within the Project Limits at four locations:

- Jersey Creek: A new double box culvert will be constructed to replace the existing box culvert located at the SR-116 crossing of Jersey Creek. An old railway trestle will be removed as part of the proposed project, reducing the localized flooding and reducing the amount of fill in the channel.
- Blucher Creek: The existing triple box culvert that currently conveys Blucher Creek flows beneath SR-116 will be replaced with a clear-span bridge.

- The unnamed creek located near Llano Road: The existing reinforced concrete box (RCB) structure will be removed and replaced.
- Washoe Creek: The existing box-culvert structure will be removed and replaced.

1.4.2.8 Cross Culverts and Ditches

The proposed project will replace existing cross-culverts that have deteriorated. All existing ditches within the project limits that will be displaced by the project activities will be replaced in-kind adjacent to the project components. In some portions of the roadway within the project limits, the existing drainage ditches will be relocated adjacent to the roadway.

The proposed project will incorporate biofiltration strips and swales to treat stormwater discharges from the highway or other impervious surfaces.

1.4.3 Alternatives Considered but Eliminated from Further Discussion

The development of alternatives for the SR-116 Roadway Rehabilitation project began with a 1985 Route Concept Report, which projected a conversion of SR-116 in the project area to a four-lane highway. Although that never advanced past the concept stage, a planned resurfacing project that began to be considered in 1989 became, after the scoping process, a larger-scale roadway rehabilitation project.

A number of alternatives for this project have successively been formulated and rejected from further study. These include the following:

- 1985 Route Concept Report: Projected a widening of SR-116 in the project area to a four-lane divided highway with parallel bike lanes and signals at three intersections.
- 1993 "Roadway Rehabilitation and Widening project" (draft project Scope Summary Report (PSSR)): Expanded shoulders, realignment of the intersections at Old Gravenstein, Madrone/Derby and Locust, and ditch relocation.
- 1996 Final PSSR: Included a left turn lane at Llano Road, widening of the bridge on Blucher Creek, and bus pads.
- 1997 Supplemental PSSR: Added signals at the Mt. Vernon/Lone Pine intersection, a left turn lane at Madrone Avenue, and the digging out and replacement of deteriorated sections of roadbed. Design responsibilities subsequently transferred to Caltrans District 3.
- 2001-2002 Caltrans District 3 (Marysville) Design: Added widening of the bridge on Gossage Creek and the replacement of the Jersey Creek box culvert, full-size shoulders throughout the project area, left-turn pockets at all intersections, extensions of existing turn pockets, and 2.3 kilometers (1.4 miles) of highway. This expanded project footprint led to increased right-of-way costs and compensation costs, especially given the prevalence of habitat for the recently listed as endangered California Tiger Salamander (CTS) in the project area. The project was deemed unlikely to be built due to cost constraints.

- In November 2006, a project plan with a greatly reduced footprint was produced and project development again proceeded. After comparing and weighing the benefits and impacts of all of the feasible alternatives, the project development team has identified this as the preferred alternative, subject to public review. Final identification of a preferred alternative will occur subsequent to the public review and comment period.

1.4.4 Comparison of Alternatives

The following alternatives were selected for further detailed study: 1) the No-Build Alternative and 2) the proposed project. The No-Build Alternative would not preclude spot improvement or routine maintenance as necessary. If the No-Build alternative were chosen, the pavement overlay currently incorporated into the project would be constructed by itself. Caltrans has already determined that the overlay project would not have a significant effect on the environment.

After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment. In accordance with CEQA, if no immitigable significant adverse impacts are identified, Caltrans will prepare a Negative Declaration (ND) or Mitigated ND. Similarly, if Caltrans determines the action does not significantly impact the environment, it will as the FHWA's delegatee issue a Finding of No Significant Impact (FONSI) in accordance with NEPA.

1.5 OTHER PROPOSED CALTRANS ACTIONS IN THE PROJECT VICINITY

Forestville Bypass

The proposed project will construct a bypass to divert SR-116 from the town of Forestville, where SR-116 currently follows the main street. The Forestville Elementary School and the parking lots and driveways of several businesses are on the current SR-116, and trucks from local rock quarries use the route. The project is intended to address traffic congestion and safety issues. The project will be phased as funds become available.

Rohnert Park Expressway Park and Ride Lot project

The project is constructing a southbound loop on-ramp and realigning the northbound on-ramp to improve level of service and reduce accidents. The new park and ride lot, combined with the improvement of the existing park and ride lot, will accommodate the demand for a growing need of parking spaces by public transit riders and car/vanpoolers. The project is currently in construction.

Widen From 4 To 6 Lanes For High Occupancy Vehicle (HOV) Lanes From Old Redwood Highway To The Rohnert Park Expressway

This project will widen and improve US-101 for HOV lanes in order to address traffic bottlenecks between Old Redwood Highway (north of Petaluma) and Rohnert Park Expressway (in Rohnert Park). Environmental studies are currently underway.

Structure Rehabilitation at Laguna De Santa Rosa Bridge

The purpose of the project is to replace the Laguna De Santa Rosa Bridge on SR-12 near Sebastopol due to scour and other deteriorating conditions. The new bridge will have two 3.6-meter (12-foot) lanes and 2.4-meter (8.0-foot) shoulders, which comply with the current standard. This project is currently in environmental review.

1.6 PERMITS AND APPROVALS NEEDED

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval
United States Fish and Wildlife Service	Consultation under the federal Endangered Species Act
United States Army Corps of Engineers	Permit regulating impacts to wetlands and "Waters of the United States"
California Department of Fish and Game	1602 Agreement for Streambed Alteration Section 2080.1 Agreement for Threatened and Endangered Species
North Coast Regional Water Quality Control Board	Section 401 Certification and Dewatering Permit